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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/631,035

07/28/2003

Darryl C. Stein

G48-1386-1

9023

27123 7590 12/27/2006  
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EXAMINER

BLAKE, CAROLYN T

ART UNIT

PAPER NUMBER

3724

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

12/27/2006

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/631,035

Applicant(s)

STEIN ET AL.

Examiner

Carolyn T. Blake

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 7-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This action is in response to the remarks and amendment filed on October 5, 2006.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 103***

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearl (3,815,221) in view of Henninger (3,274,409), Balamuth et al (3,086,288), and Kuris (3,610,080).

Pearl discloses an apparatus for cutting sheet type work (30) comprising a blade (18) defining at least one sharpened edge; a frame (12) having a support surface (16) mounted thereon for carrying at least one layer of a sheet-type work material (30); a carriage (22) coupled to said frame (12) for movement back-and-forth there along in a first coordinate direction in response to commands issued from a controller (26); a cutter head (20) coupled to said carriage (22) for movement back-and-forth in a second coordinate direction also in response to commands issued from said controller (26), said second coordinate direction being approximately perpendicular to said first coordinate direction.

Pearl fails to disclose the means for actuating the blade or a resonator assembly. However, Henninger discloses a resonator assembly including: a magnetically permeable beam (12); an element (20/21) coupled to said beam (12); a magnetic pickup (14) coupled to said beam (12); at least one discreet

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magnet (32) positioned proximate said pickup (14), said magnet (32) and said pickup (14) defining an air gap there between; resonating means for moving said at least one discreet magnet (32) relative to said pickup (14) to create an alternating magnetic field, thereby causing said pickup (14) to vibrate, which in turn cause said beam (12) and said element (20/21) to vibrate. Furthermore, Henninger discloses the resonating means includes: a magnet retainer (25) having a plurality of magnets (32) coupled thereto; a motor; said magnet retainer (25) being rotatably coupled to said motor (by shaft 7); and wherein rotation of said motor and thereby said magnet retainer (25) causes at least one magnet (32) to pass by said pickup (14) at a known frequency thereby generating an alternating magnetic flux that in turn causes said element (12) to resonate. Henninger discloses a mounting bracket (16/16), said beam (12) being attached to and cantilevered from said mounting bracket (16/17). The Henninger resonator assembly is fairly small in size and lightweight, while still being powerful and efficient (see. col. 1, lines 35-36 and lines 42-43). In addition, Balamuth et al disclose advantages for using a vibrating blade in cutting operations, particularly for cutting fabrics and leather. Balamuth et al disclose a vibrating blade requires less force (col. 1, lines 45-49) and creates a cleaner cut (col. 1, lines 53-56) than a blade that is not vibrating. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a small, lightweight, powerful, and efficient resonator assembly, as

disclosed by Henninger, on the Pearl device for the purpose of vibrating the blade, which Balamuth et al disclose creates a clean cut with less force.

In addition, the modified device of Pearl fails to teach a controller as claimed. However, Kuris discloses an apparatus for cutting comprising a controller (15) for monitoring the vibration of a blade (13) and for compensating damping of said vibration of said blade by tuning said resonating means. This tuning can be performing manually or automatically, and allows for adjustment of the vibrating blade depending on the force of the work piece on the blade. See col. 3, line 72 to col. 4, line 8. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a controller, as taught by Kuris, on the modified Pearl device for the purpose adjusting the blade vibration in response to work piece strength.

#### ***Response to Arguments***

4. Applicant's arguments, see section I of the remarks, filed October 5, 2006, with respect to the drawings objections have been fully considered and are persuasive. The objection of the drawings has been withdrawn.

5. Regarding the art rejections, Applicant's arguments filed October 5, 2006 have been fully considered, but they are not persuasive.

In response to Applicant's argument that the references cited cannot be combined to reject the claimed invention, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be

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expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Applicant argues the Kuris reference teaches a shaving instrument wherein vibrations are perpendicular to the cutting edge, and therefore cannot be properly used as prior art. This is incorrect. The Kuris reference may have differences with Applicant's device, but it still teaches a controller for monitoring the vibration of a blade. While the blades and reasons to vibrate the blade may be different, the Kuris reference is not cited for teaching the vibrating blade claimed, but rather the controller for monitoring a vibrating blade and motivation for combination.

In addition, Applicant argues Balamuth et al disclose an ultrasonically vibrated cutting knife, and therefore cannot anticipate the claimed invention. It appears that Applicant does not understand the rejection. The Balamuth et al reference is cited merely to teach why a vibrating cutting blade would be desired.

Applicant is encouraged to read the last sentence of each rejection paragraph in order to fully understand the rejection made. It appears as though Applicant is simply reading the first line of each rejection and drawing incorrect conclusions.

While differences may exist between Applicant's device and the prior art of record, these differences have not been claimed.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn T. Blake whose telephone number is (571) 272-4503. The examiner can normally be reached on Monday to Thursday, 7:00 AM to 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer D. Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

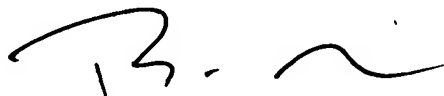
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



CB

December 11, 2006



BOYER D. ASHLEY  
SUPERVISORY PATENT EXAMINER